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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,942	04/02/2004	Antoon Johannes Gerardus van Rossum	005032.00053	8940

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EXAMINER
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KORNAKOV, MICHAIL

ART UNIT	PAPER NUMBER
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1746

DATE MAILED: 05/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/815,942

**Applicant(s)**

VAN ROSSUM ET AL.

**Examiner**

Michael Kornakov

**Art Unit**

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 29-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. Claims 29-40 are currently pending and examined on the merits.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 29-37, 39-40 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al (U.S. 5,574,117) in view of EP 0478,067.

Yoshida discloses an ***alkali soluble film***, comprising an ***acrylic polymer as a binder***, which acrylic polymer is obtained by bulk polymerization and has a number average molecular weight **1,000-1,000,000** and  $M_w/M_n$  ratio of **less than 5**. **A glass transition temperature of the binder is -80°C or higher** (see abstract). The soluble film is removable ***by alkali solution and is useful as protective film coating for agricultural use*** (see col.8, lines 17-27). Specific monomers named in the instant claim 29 are found in Yoshida's Examples, such as Example 1-1 in col.43, 44, Example 2-27 in col.53 and others. As for the acid value number, a broad teaching of Yoshida is that the acid value ***is higher*** than 65 mg/g, and there are several specific examples, such as example, which cite the acid values of **150mg/g**, which is a specific point within the claimed range. The acrylic polymer of Yoshida when used in compositions for protective coatings employs different additives, such as reinforcing agents, fillers, antioxidants, plasticizers, lubricants such as carbon black, silica based anhydrous salicylic acid **calcium carbonate** (col. 5, lines 35-40) and **titanium oxide** (col. 9, line 64), which are named as a pigments in the instant claim 35.

Yoshida further teaches that for an alkali soluble adhesive the polymer binder is combined with solvent wax, tackifier, and if 100 parts of a polymer is combined with 0-400 parts of solvent, 0-50 parts of wax, and 0-50 parts of tackifier, as taught by Yoshida, then the amount of a binder as set forth in the instant claims 34 and 36 is clearly within the claimed range. Example 2-21 shows the production of a polymer, which has weight average molecular weight **32,000, polydispersity 2.2, and acid value of 160mg/g.**

**These are all three characteristics within the claimed range disclosed in a single embodiment of Yoshida.** See also Table 2-5 in col.53, Examples 2-15, comparative example 2-9 in col. 56, see also claims 5, 6 in col.60.

Polycarboxylic acid thickener is taught by Yoshida. The detergents taught by Yoshida throughout entire Patent are the pigment dividers of the instant claims.

Yoshida teaches the protective coating as instantly claimed with characteristics as instantly claimed. He does not specifically attribute such coating to a green house, however clearly motivates those skilled in the art to do so by utilizing his protective film coating removable by alkali solution for agricultural purposes.

EP'067 discloses a protective coating and a method of forming such coating against **solar radiation for glass plates** and outer surfaces of **horticultural greenhouses by spraying a composition and drying it on the said substrate** (see abstract, page 2, lines 1-4). The product of EP'067 consist of a polymer and an inorganic substance, which in dried condition of the product is light reflective, in particular the additives are one or more inorganic pigments, at least one binding agent (adhesion promoter), at least one surface active agent (pigment divider), a preserving

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agent, etc. (page 2, lines 41-45). The product used to remove the coating made of above described product is formed from a basic component, at least one complex former and at least one surface active agent (page 2, lines 49-51). As an example of a binder forming polymer the copolymer of **styrene** and maleic anhydride is used, (see Example in the Composition product 1, lines 15-25 of page 3). The finely divided calcium carbonate, which is used as a pigment is utilized in the amount of 30-60 % by weight .

However, EP'067 does not limit its binder for a protective coating to a copolymer of styrene and maleic anhydride. Moreover, EP'067 generically teaches that the effective binding agent is an organic ***polymer with neutralized carboxylic acid residues*** (see page 2, lines 46, 47).

Yoshida also discloses the maleic acid monomer as a possible monomer for his protective coating in the list along with polymers based on (meth)acrylic monomers, thus Yoshida recognizes equivalency of using polymers of acrylates and polymers of maleic acid for protective film coatings removable by alkali solutions. Therefore based on a clear motivation of Yoshida to utilize the coatings in agriculture and on the recognized equivalency of use of maleic acid and acrylic acid polymers as discussed above, one skilled in the art would have found obvious to utilize protective coating of Yoshida with its recited properties and functions for the greenhouse of EP'067. It is further noted that a preamble is not accorded significant patentable weight since it merely recites the purpose of a process or the intended use of a structure, and can stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). It is further noted that

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since the polymer binder of Yoshida is identical to the polymer binder of the instant claims, and its characteristics are within the claimed range, such binder is used for protective coating, therefore it will be fully capable of being used as a protective coating on a substrate in a greenhouse. The Yoshida reference was not used as strictly anticipatory, because of the lack of express teaching of a transparent substrate.

5. Claim 38 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida in view of EP'067 as applied to claim 29 above and further in view of Wieczorrek (U.S. 4,409,266).

While disclosing different additives that can be used as adhesion promoters, Yoshida and EP'067 do not specifically disclose silanes as adhesion promoters. Wieczorrek discloses shatterproof coating of glass surfaces by coating the surfaces with a coating composition. The glass surfaces to be coated being coated before application of the coating composition with a physically drying priming lacquer containing a ***silane adhesion promoter*** and a catalyst which accelerates hardening of the coating composition and, as binder, a polymer which has a linear molecular structure and which is soluble in lacquer solvents (abstract). Because all the references are concerned with the same problem of protective coating applied to glass with adhesion promoters, those skilled in the art would have found obvious to utilize silane adhesion promoter of Wieczorrek in the coating of Yoshida/EP'067, because doing so will enhance adhesion properties of the polymer film to the glass substrate.

### ***Response to Arguments***

4. Applicant's arguments filed 03/16/2006 have been fully considered but they are not persuasive. Applicants' argument resides in contention that some specific examples do not disclose all the characteristics of the binder in the same embodiment, while those examples, which disclose the characteristics as claimed, do not teach or suggest applying the polymer coating to a transparent surface of a greenhouse. Applicants also argue that Yoshida does not teach or suggest applying a coating to a transparent surface of a greenhouse, and therefore, allegedly Yoshida does not recognize the problems associated with protective coatings. This is not found persuasive, because of several reasons:

a) as acknowledged by Applicants, Yoshida does teach the binder that possesses all the characteristics of the claimed binder, and the polymer of the instant claims, therefore, such polymer will be fully capable of being used as a protective coating on the same surfaces as claimed. It is also noted that the coating of Yoshida is alkali removable.

b) in the entire body of the patent, Yoshida emphasizes the use of the polymer binder for protective film coating (col.1, line 15, col.8, lines 17-26).

5. Applicants further argue that EP 478067 (EP 067) does not remedy the defects of Yoshida, because the only example of EP'067 is outside the scope of the claims and does not provide the desired results. Further Applicants allege that even though the coating of EP'067 is used on glass substrates for greenhouses, the polymer does not possess the claimed characteristics. In response to this it is noted that had the binder of EP'067 possessed the claimed characteristics, then the reference EP'067 would have

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been used as anticipatory on its own. In response to applicant's arguments against the references individually, it is noted here that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Thus, the reference to EP'067 was brought to show the applicability of polymers similar to those of Yoshida in the coatings for greenhouses.

6. The last Applicants' argument is that the reference to Wieczorrek is directed to a shatterproof coating for glass surfaces. Wieczorrek does not teach or suggest a protective coating for the transparent surface of a greenhouse in accordance with the instant claims and does not remedy the defects of Yoshida. This is not persuasive because the only reason to bring

Wieczorrek reference is utilized to show the use of silanes as adhesion promoters in protective coating compositions. Wieczorrek does disclose a protective coating. The fact that Wieczorrek does not disclose the use of such coating for greenhouses does not disqualify the reference to be combined for the stated purpose. Once again, Applicants attack the references individually, while the combination of those is applied by the Examiner.

The Affidavit of July 2002 was previously addressed.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



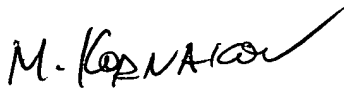
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Kornakov whose telephone number is (571) 272-1303. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "M. Kornakov", with a long, sweeping horizontal stroke extending to the right.

Michael Kornakov  
Primary Examiner  
Art Unit 1746

05/23/2006